The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 101848, 755 6

Source:

Date Processed by STIC:

ENTERED



**IFWO** 

RAW SEQUENCE LISTING DATE: 10/21/2004
PATENT APPLICATION: US/10/848,755A TIME: 15:20:50

Input Set : A:\PTO.FG.txt

```
Output Set: N:\CRF4\10212004\J848755A.raw
     3 <110> APPLICANT: Mao, Mao
     5 <120> TITLE OF INVENTION: HUMAN DIAPHANOUS-3 GENE AND METHODS OF USE THEREFOR
     7 <130> FILE REFERENCE: 9301-196-999
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/848,755A
                                                                             (ps.6)
C--> 10 <141> CURRENT FILING DATE: 2004-05-18
     11 <150> PRIOR APPLICATION NUMBER: 60/471,842
     12 <151> PRIOR FILING DATE: 2003-05-11
    14 <160> NUMBER OF SEQ ID NOS: 275
     16 <170> SOFTWARE: PatentIn version 3.2 CAM: 301891-999188
     18 <210> SEQ ID NO: 1
     19 <211> LENGTH: 4331
     20 <212> TYPE: DNA
     21 <213> ORGANISM: Homo sapiens
     23 <400> SEQUENCE: 1
     24 cgggagtaaa acctgttgtc gatccctcag cttccagctt gcggcttgct gagtggccac
                                                                               60
     26 cttctttccg gtccccggag ctgcggggaa agatggaacg gcaccagccg cggctgcacc
                                                                              120
                                                                              180
     28 acceggecea aggeteagee getgggacte cetaceette etcageetet etcegegget
     30 geogggaaag caagatgeeg egeaggaagg geoeccaaca eeeteegeeg eeeagtggee
                                                                              240
                                                                              300
     32 cogaggagec tggggagaag cgccccaagt ttcatttaaa tattaggaca ctgacggatg
                                                                              360
     34 atatgctgga caaatttgcc agcataagaa ttccagggag caagaaagag agacctccac
     36 ttcccaacct gaagactgca tttgcaagca gtgattgctc agcagcacct ttagagatga
                                                                              420
     38 tggagaactt tccaaagcca ctgtcagaga atgaactctt agaacttttt gaaaaaatga
                                                                              480
     40 tqqaaqatat qaatttaaat gaagataaaa aggcaccatt gcgggaaaag gacttcagta
                                                                              540
                                                                              600
     42 tcaaaaaaga aatggtgatg cagtacatta atactgcttc taagacagga agtcttaaga
     44 gaageegaca gateteacet caggaattea tteatgaget gaaaatgggg tetgeagatg
                                                                              660
                                                                              720
     46 agagacttgt cacatgcctg gagtctctcc gagtgtcttt gaccagcaat cctgtgagtt
                                                                              780
     48 gggtggaaag ctttggacat gaagggcttg gattattatt agacattttg gaaaaactga
                                                                              840
     50 ttaqtqqaaa aatccaaqaa aaaqttqtaa aqaaaaatca acataaagtc atacagtgtc
                                                                              900
     52 taaaaqccct qatqaatacq caqtatqqct tqqaaaqaat tatgagtgag gagaggagcc
                                                                             960
     54 tttccttatt ggccaaagcc gtggatccca gacaccccaa tatgatgaca gatgtggtta
     56 aacttetete tgeggtatge attgtagggg aagaaageat cettgaagaa gttttagaag
                                                                             1020
                                                                             1080
     58 ctttaacttc aqctqqtqaa qaaaaaaaaa ttqacaqatt tttttgtatt gtggaaggcc
     60 teeggeacaa tteagtteaa etgeaagtag ettgtatgea geteateaat geeetggtta
                                                                             1140
                                                                             1200
     62 catctcctga tgatttggat ttcaggcttc acatcagaaa tgaatttatg cgttgtggat
     64 tgaaagagat attgccaaat ttaaaatgca ttaagaatga tggcctggat atccaactta
                                                                             1260
                                                                             1320
     66 aagtetttga tgagcataaa gaagaagatt tgtttgagtt atcccatcgc cttgaagata
     68 ttagagetga aettgatgaa geatatgatg tttacaacat ggtgtggage acagttaaag
                                                                             1380
     70 aaactagagc agagggatat tttatttcta ttcttcagca tcttttgctg attcgaaatg
                                                                             1440
     72 attattttat aaggcaacaa tacttcaaat taattgatga gtgtgtatcc cagattgtat
                                                                             1500
```

74 tqcatagaga tggaatggat ccagacttca catatcgaaa aagactagat ttagatttaa

76 cccagtttgt agacatttgc atagatcaag caaaactaga agagtttgaa gagaaagcat

78 cagaacttta caagaaattt gaaaaagagt ttaccgacca ccaagaaact caggctgaat

80 tqcaqaaaaa agaggcaaag attaatgagc ttcaagcaga gctacaagct tttaagtctc

1560 1620

1680

1740

DATE: 10/21/2004 TIME: 15:20:50 PATENT APPLICATION: US/10/848,755A

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\10212004\J848755A.raw

```
1800
82 aqtttqqtqc cttqccaqct gattqtaata ttcctttqcc tccctctaaa gaaggtggaa
                                                                        1860
85 ctggccactc agcacttcct cctccgcctc cactgccttc tggtggaggg gtgccgcctc
87 cacctcctcc cccaccacct cctccacttc caggaatgcg gatgccattc agtggtcctg
                                                                        1920
89 tgcctccacc acctcccctg ggattccttg gaggacaaaa ttctcctcct ctaccaatcc
                                                                        1980
91 tgccatttgg gttgaaacca aagaaagaat ttaaacctga aatcagcatg agaagattga
                                                                        2040
                                                                        2100
93 attqqttaaa qatcaqacct catgaaatga ctgaaaactg tttctggata aaagtaaatg
95 aaaataagta tgaaaacgtg gatttgcttt gtaaacttga gaatacattt tgttgccaac
                                                                        2160
                                                                        2220
97 aaaaagagag aagagaagag gaagatattg aagagaagaa atcgattaag aaaaaaatta
99 aagaacttaa gtttttagat tctaaaattg cccagaacct ttcaatcttc ctgagctctt
                                                                        2280
                                                                         2340
101 ttcqqqtqcc atatqaqqaa atcagaatga tgatattgga agtagatgaa acacggttgg
103 cagagtetat gatteagaac ttaataaage atetteetga teaagageaa ttaaatteat
                                                                         2400
105 tqtctcaqtt caaqaqtgaa tatagcaact tatgtgaacc tgagcagttt gtggttgtga
                                                                         2460
                                                                         2520
107 tgagcaatgt gaagagacta cggccacggc tcagtgctat tctctttaag cttcagtttg
                                                                         2580
109 aagagcaggt gaacaacatc aaacctgaca tcatggctgt cagtactgcc tgcgaagaga
111 taaagaagag caaaagcttt agcaagttgc tggaacttgt attgctaatg ggaaactaca
                                                                         2640
113 tqaatqctqq ctcccqqaat gctcaaacct tcggatttaa ccttagctct ctctgtaaac
                                                                         2700
115 taaaggacac aaaatcagca gatcagaaaa caacgctact tcatttcctg gtagaaatat
                                                                         2760
117 gtgaagagaa gtaccctgat atactgaatt ttgtggatga tttggaacct ttagacaaag
                                                                         2820
119 ctagtaaagt ctctgtagaa acgctggaaa agaatttgag gcagatggga aggcagcttc
                                                                         2880
121 aacagettga gaaggaattg gaaacettte ecceteetga ggaettgeat gacaagtttg
                                                                         2940
123 tgacaaagat gtccagattt gttatcagtg caaaagaaca atatgagaca ctttcgaagt
                                                                         3000
                                                                         3060
125 tacacqaaaa catqqaaaaq ttataccaga gtataatagg atactatgcc attgatgtga
127 agaaggtgtc tgtggaagac tttcttactg acctgaataa cttcagaacc acattcatgc
                                                                         3120
129 aagcaataaa ggagaatatc aaaaaaaagag aagcagagga aaaagaaaaa cgtgtcagaa
                                                                         3180
131 tagctaaaga attagcagag cgagaaagac tcgaacgcca acaaaagaaa aagcgtttat
                                                                         3240
133 tagaaatgaa gactgagggt gatgagacag gagtgatgga taatctgctg gaggccttgc
                                                                         3300
135 agtccggggc tgccttccgc gacagaagaa aaaggacacc gatgccaaaa gatgttcggc
                                                                         3360
137 agagteteag tecaatgtet eagaggeetg ttetgaaagt ttgtaaceat gaaaateaga
                                                                         3420
139 aagtgcagtt aacagaaggg tcacgttcac actacaatat caattgcaac tcaacaagga
                                                                         3480
141 ctccagtcgc caaggagctt aattataatc tagacactca tacgtctact agggaggatc
                                                                         3540
                                                                         3600
143 aaggcagctg agaagaagga agcgtgtaat gtagaaagca acagaaaaaa ggaaacggaa
145 cttcttggct ctttttctaa aaatgaatca gttcccgaag ttgaagccct gctggcaaga
                                                                         3660
147 ttacgagctt tataagttaa actggttttt aaaaaaatga ttaagccaaa tataaagcca
                                                                         3720
149 tgctctaaac tatacccttg aaaaaattgc tttatgtaag tgacttatat agtttaaatt
                                                                         3780
151 atgatatata tagaaaaata aagctaaata tatgattgca atgcttttct atgtactgga
                                                                         3840
153 ggttttggtt attcaagatt gtaccggctt aatccttttt ttttttttgt ctcctggtat
                                                                         3900
                                                                         3960
155 tcctcagttc tttatttggt ggttaaatta tacatattgc tttagagagc aggtaggtgg
157 ccatgtgttc agcagtgtgt ccttaagaaa ataccatctt tctaagccac tggaattttt
                                                                         4020
                                                                         4080
159 actttactat ttttaacatt aatggatgtc aggtcatcaa cctcaagtct ttacatatcc
161 atgtatattc catatatatt gtttatatag gcccaagttt ctccttaatt gggatctata
                                                                         4140
                                                                         4200
163 tactaccage acaacatcaa aaacatgtaa ttgaatacat cagagetata tatgtaagga
165 aatgactggt gaccccatta tcatcattgt tgaattcatg ttaagtagac cctctagggg
                                                                         4260
                                                                         4320
167 accataagge aattgageac ataacgaaaa atgatgeaat aagaatgtat geactetett
                                                                         4331
169 tgccaaatgc a
172 <210> SEQ ID NO: 2
```

173 <211> LENGTH: 3459 174 <212> TYPE: DNA

178 <400> SEQUENCE: 2

175 <213> ORGANISM: Homo sapiens

PATENT APPLICATION: US/10/848,755A

DATE: 10/21/2004 TIME: 15:20:50

Input Set : A:\PTO.FG.txt
Output Set: N:\CRF4\10212004\J848755A.raw

170	2+44224444	200200000	aataaaaaa	aaaaaaaaa	aataaaaaaa	taggaataga	60
			gctgcaccac				120
			ccgcggctgc cagtggcccc				180
							240
			gacggatgat				
			acctccactt				300
189			agagatgatg				360
			aaaaatgatg				420
			cttcagtatc				480
			tcttaagaga				540
			tgcagatgag				600
			tgtgägttgg				660
			aaaactgatt				720
204	aaaaatcaac	ataaagtcat	acagtgtcta	aaagccctga	tgaatacgca	gtatggcttg	780
206	gaaagaatta	tgagtgagga	gaggagcctt	tccttattgg	ccaaagccgt	ggatcccaga	840
208	caccccaata	tgatgacaga	tgtggttaaa	cttctctctg	cggtatgcat	tgtaggggaa	900
210	gaaagcatcc	ttgaagaagt	tttagaagct	ttaacttcag	ctggtgaaga	aaaaaaaatt	960
			ggaaggcctc			·	1020
			cctggttaca				1080
		_	ttgtggattg				1140
			ccaacttaaa				1200
			tgaagatatt				1260
			agttaaagaa				1320
			tcgaaatgat				1380
			gattgtattg				1440
			agatttaacc				1500
			gaaagcatca				1560
			ggctgaattg				1620
			taagtctcag				1680
			aggtggaact				1740
			gccgcctcca				1800
			tggtcctgtg				1860
			accaatcctg				1920
							1980
			aagattgaat				2040
			agtaaatgaa				
			ttgccaacaa				2100
			aaaaattaaa				2160
			gagctctttt				2220
			acggttggca				2280
			aaattcattg				2340
			ggttgtgatg				2400
			tcagtttgaa				2460
			cgaagagata				2520
			aaactacatg				2580
		_	ctgtaaacta				2640
	-		agaaatatgt		_	-	2700
270	gtggatgatt	tggaaccttt	agacaaagct	agtaaagtct	ctgtagaaac	gctggaaaag	2760
272	aatttgaggc	agatgggaag	gcagcttcaa	cagcttgaga	aggaattgga	aacctttccc	2820
274	cctcctgagg	acttgcatga	caagtttgtg	acaaagatgt	ccagatttgt	tatcagtgca	2880
276	aaagaacaat	atgagacact	ttcgaagtta	cacgaaaaca	tggaaaagtt	ataccagagt	2940
			_				

PATENT APPLICATION: US/10/848,755A T

DATE: 10/21/2004 TIME: 15:20:50

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\10212004\J848755A.raw

280 282 284 286 288 290 292 294	gcag gaad gtga agga ctga taca	aataa gagga atgga acaco aaagt aatat	act taaa aac aac aac aac aac aac aac aac	caga aagaa atctg cgcca gtaac attgc	aacca aaaa gaaaa gctgg aaaag ccatg ccatg	ac at cg to ga go ga to ga ac ac	tcat gtcac gttt gcctt gttca acaac	gaata gaata tatta tgcaq ggcaq agaaa	a gea a get a gaa g tee g agt a gte	aataa caaag cgggg cctca gcagt	aagg gaat aaga gctg agtc taa gcca	agaa taga ctga cctt caat caga	atato cagag agggt ceego cgtet aaggg	caa a geg a ega t ega o tea g	aaaaa agaaa tgaga cagaa gaggo acgtt	actgac agagaa agactc acagga agaaaa cctgtt ccacac aatcta	3000 3060 3120 3180 3240 3300 3360 3420 3459
	3 <211> LENGTH: 1152																
	<212												•		-		
	<213					sar	piens	3									
	<400					_	_	_			_		~~	~-3	_	- 3	
		GIu	Arg	His.	GIn	Pro	Arg	Leu	His		Pro	Ala	GIn	GIY	Ser	Ala	•
305				_	5	_	_		_ =	10	_	_			15		
	Ala	Gly	Thr		Tyr	Pro	Ser	Ser		Ser	Leu	Arg	Gly		Arg	Glu	
309				20				_	25	_				30			
	Ser	Lys		Pro	Arg	Arg	Lys	_	Pro	Gln	His	Pro		Pro	Pro	Ser	
313			35					40					45			_	
	Gly		Glu	Glu	Pro	Gly		Lys	Arg	Pro	Lys		His	Leu	Asn	Ile	
317		50	•				55		•			60					
		Thr	Leu	Thr	Asp		Met	Leu	Asp	Lys		Ala	Ser	Ile	Arg		
321						70	•				75					80	
	Pro	Gly	Ser	Lys	Lys	Glu	Arg	Pro	Pro	Leu	Pro	Asn	Leu	Lys	Thr	Ala	
325					85					90					95		
328	Phe	Ala	Ser	Ser	Asp	Cys	Ser	Ala	Ala	Pro	Leu	Glu	Met		Glu	Asn	
329				100					105					110			
	Phe	Pro		Pro	Leu	Ser	Glu		Glu	Leu	Leu	Glu		Phe	Glu	Lys	
333			115					120					125				
	Met		Glu	Asp	Met	Asn		Asn	Glu	Asp	Lys		Ala	Pro	Leu	Arg	
337		130		<u></u>			135				<b>_</b>	140					
		Lys	Asp	Phe	Ser		Lys	Lys	Glu	Met		Met	GIn	Tyr	Ile		
	145			_		150		_	-	_	155	_			_	160	
	Thr	Ala	Ser	Lys		GLY	Ser	Leu	Lys	_	Ser	Arg	GIn	He	Ser	Pro	
345					165		_	_		170	_		_	~	175		2
	GIn	Glu	Phe		His	GIu	Leu	Lys		GIY	Ser	Ala	Asp		Arg	Leu	
349			_	180	~-3	_	_	_	185	_	_	1	_	190	_		
	Val	Thr	-	Leu	GIU.	ser	Leu	_	Val	Ser	Leu	Thr		Asn	Pro	Val	
353			195		_	_,		200	~-3		_	~-1	205	_	_	_	
	Ser		Val	Glu	Ser	Phe		His	Glu	GIY	Leu		Leu	Leu	Leu	Asp	
357		210	~7	_	_		215	~ 7	_	~ 7	<b>~</b> 7	220	-		77. 7	<b>T</b>	
		Leu	GIu	Lys	Leu		Ser	GLY	Lys	11e		GIu	ьуs	Val	Val	_	
	225	_		•	_	230		~-7	_	_	235		_		_	240	
	Lys	Asn	GIn	His	_	۷al	Ile	Gin	Cys		Lys	Ala	Leu	Met	Asn	Thr	
365		_			245					250				_	255	_	
	GIn	Tyr	Gly		Glu	Arg	Ile	Met		Glu	Glu	Arg	Ser		Ser	Leu	
369				260			2		265		_			270	_	<b>-</b>	
372	Leu	Ala	Lys	Ala	Val	Asp	Pro	Arg	His	Pro	Asn	Met	Met	Thr	Asp	Val	

PATENT APPLICATION: US/10/848,755A

DATE: 10/21/2004 TIME: 15:20:50

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\10212004\J848755A.raw

373			275					280					285			
376	Val	Lys	Leu	Leu	Ser	Ala	Val	Cys	Ile	Val	Gly	Glu	Glu	Ser	Ile	Leu
377		290					295	-			_	300				
380	Glu	Glu	Val	Leu	Glu	Ala	Leu	Thr	Ser	Ala	Gly	Glu	Glu	Lys	Lys	Ile
	305					310					315			-	-	320
		Arq	Phe	Phe	Cys	Ile	Val	Glu	Gly	Leu	Arq	His	Asn	Ser	Val.	Gln
385	-	J			325				-	330	-				335	
388	Leu	Gln	Val	Ala	Cys	Met	Gln	Leu	Ile	Asn	Ala	Leu	Val	Thr	Ser	Pro
389				340	_				345					350		
392	Asp	Asp	Leu	Asp	Phe	Arg	Leu	His	Ile	Arg	Asn	Glu	Phe	Met	Arg	Cys
393			355					360					365			
396	Gly	Leu	Lys	Glu	Ile	Leu	Pro	Asn	Leu	Lys	Cys	Ile	Lys	Asn	Asp	Gly
397		370					375					380				
400	Leu	Asp	Ile	Gln	Leu	Lys	Val	Phe	Asp	Glu	His	Lys	Glu	Glu	Asp	Leu
401	385					390					395					400
404	Phe	Glu	Leu	Ser	His	Arg	Leu	Glu	Asp	Ile	Arg	Ala	Glu	Leu	Asp	Glu
405					405					410					415	
408	Ala	Tyr	Asp	Val	Tyr	Asn	Met	Val	Trp	Ser	Thr	Val	Lys	Glu	Thr	Arg
409				420					425					430		
412	Ala	Glu	Gly	Tyr	Phe	Ile	Ser		Leu	Gln	His	Leu	Leu	Leu	Ile	Arg
413			435					440					445			
	Asn	-	Tyr	Phe	Ile	Arg		Gln	Tyr	Phe	Lys		Ile	Asp	Glu	Cys
417		450			_		455					460				
		Ser	Gln	Ile	Val		His	Arg	Asp	Gly		Asp	Pro	Asp		
	465	_	_	_	_	470	_	_	_		475			_		480
	Tyr	Arg	Lys	Arg		Asp	Leu	Asp	Leu				Val	Asp		Cys
425	~7.		<b>~</b> 1		485	<b>.</b>	<b>~</b> 1	<b>~</b> 1	<b>71.</b> .	490				<b>a</b>	495	<b>.</b>
	TTE	Asp	GIII	Ala	гаг	ьeu	GIU	GIU		GIU	GIU	гуѕ	Ата		GIU	ren
429	Ma rao	T	T	500 Dha	<i>α</i> 1	T	c1	Dho	505	7.00	TT 4 ~	C1 =	C1	510	C1 5	71-
432	TAT	ьуѕ	ьуs 515	Phe	GIU	цуѕ	GIU	520	1111	Asp	HIS	GIII	525	1111	GIII	Ата
	Clu	Lou		Lys	Larg	Clu	лΙа		Tlo	Λαn	Clu	Lou		λΊэ	Glu	T.011
437	GIU	530	GIII	цур	цуз	GIU	535	шуз	116	HSII	Giu	540	GIII	лια	Giu	шец
	Gln		Phe	Lys	Ser	Gln		Glv	Δla	T.em	Pro		Agn	Cvs	Agn	Tle
	545			<b>1</b> ,0	DCI	550				шси	555	1114	тър	0,0	11011	560
		Leu	Pro	Pro	Ser		Glu	Glv	Glv	Thr		His	Ser	Ala	Leu	
445					565	-1-		1	0-1	570	<b>-</b> 1				575	
	Pro	Pro	Pro	Pro		Pro	Ser	Glv	Glv		Val	Pro	Pro	Pro		Pro
449	•			580	-				585	4				590		
452	Pro	Pro	Pro	Pro	Pro	Pro	Leu			Met	Arq	Met	Pro	Phe	Ser	Gly
453			595					600	•				605			_
456	Pro	Val	Pro	Pro	Pro	Pro	Pro	Leu	Gly	Phe	Leu	Gly	Gly	Gln	Asn	Ser
457		610					615		_			620	_			
460	Pro	Pro	Leu	Pro	Ile	Leu	Pro	Phe	Gly	Leu	Lys	Pro	Lys	Lys	Glu	Phe
	625					630			-		635					640
464	Lys	Pro	Glu	Ile	Ser	Met	Arg	Arg	Leu	Asn	Trp	Leu	Lys	Ile	Arg	Pro
465					645					650					655	
468	His	$\operatorname{Glu}$	Met	${\tt Thr}$	$\operatorname{Glu}$	Asn	Cys	Phe	${\tt Trp}$	Ile	Lys	Val	Asn	Glu	Asn	Lys
469				660					665					670		

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/848,755A

DATE: 10/21/2004 TIME: 15:20:51

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\10212004\J848755A.raw

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:118; N Pos. 1246,1256

Seq#:130; N Pos. 4,36,50,56,60

Seq#:171; N Pos. 2741

Seq#:178; N Pos. 13

## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/848,755A

DATE: 10/21/2004 TIME: 15:20:51

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\10212004\J848755A.raw

L:9 M:270 C: Current Application Number differs, Replaced Application Number L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:7632 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:118 after pos.:1200 L:8618 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:130 after pos.:0 L:13115 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:171 after pos.:2700 L:13634 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:178 after pos.:0